



ARNOLD & PORTER LLP

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555 Twelfth Street, NW Washington, DC 20004-1206

October 14, 2004

Mail Stop Amendment Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Re:

U.S. Application No. 10/785,109

Filed: February 25, 2004

Title: Novel Proteins and Methods for Producing the Proteins

Applicants: Masaaki GOTO et al.

Atty. Docket: 16991.017

Sir:

The following documents are forwarded herewith for appropriate action by the U.S. Patent and Trademark Office (PTO):

- 1. an Information Disclosure Statement;
- 2. Form PTO-1449 (15 pages) with twenty-four (24) accompanying references; and
- 3. a return postcard.

Please stamp the attached postcard with the filing date of these documents and return it to our courier.

In the event that extensions of time beyond those petitioned for herewith are necessary to prevent abandonment of this patent application, then such extensions of time are hereby petitioned. Applicants do not believe any fees are due in conjunction with this filing. However, if any fees are required in the present application, including any fees for extensions of time, then the Commissioner is hereby authorized to charge such fees to Arnold & Porter LLP Deposit Account No. 50-2387 referencing matter number 16991.017. A duplicate copy of this letter is enclosed.

Respectfully submitted,

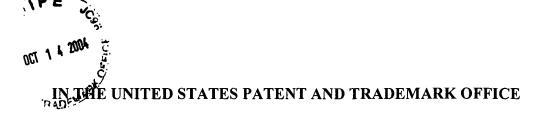
David R. Marsh (Reg. Attorney No. 41,408)

Rachel L. adams

Rachel L. Adams (Reg. Attorney No. 54,660)

Kristan L. Lansbery (Reg. Agent No. 53,183)

Enclosures



In re application of:

Group Art Unit: 1646

Masaaki GOTO et al.

Examiner: To be assigned

Appln. No.: 10/785,109

Confirmation No.: 1642

Filed: February 25, 2004

Atty. Docket: 16991.017

For: Novel Proteins and Methods for

Producing the Proteins

Information Disclosure Statement

Mail Stop Amendment Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Dear Sir:

The attention of the Examiner is invited to the references listed on the attached Form PTO-1449.

Copies of the references listed on pages 1-2 of the attached Form PTO-1449 are submitted herewith.

Pursuant to the Official Gazette Notice of August 5, 2003 (1276 OG 55), copies of the U.S. patents and published applications listed on pages 3-5 of the attached Form PTO-1449 are not submitted herewith. Applicants note that the instant application was filed on February 25, 2004.

Copies of the references listed on pages 6-15 of the attached Form PTO-1449 were previously submitted in prior Application No. 10/232,858, filed September 3, 2002. Pursuant to 37 C.F.R. § 1.98(d) and MPEP § 609, the prior application is identified by its U.S. Application Number in this Information Disclosure Statement, and the above-captioned application relies on the prior application for an earlier effective filing date under 35 U.S.C. § 120.

It is respectfully requested that the information above be expressly considered during the prosecution of this application, and that the references be made of record therein and appear among the "References Cited" on any patent to issue therefrom.

Certification and/or Fee

Because this Information Disclosure Statement is being submitted prior to issuance of the first action on the merits of the above-captioned application, no certification or fee is required.

Respectfully submitted,

David R. Marsh (Reg. Attorney No. 41,408)

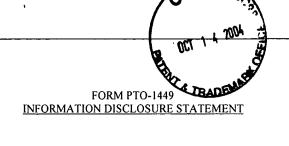
Rachel S. adams

Rachel L. Adams (Reg. Attorney No. 54,660)

Kristan L. Lansbery (Reg. Agent No. 53,183)

Date: October 14, 2004

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ATTY. DOCKET NO.	APPLICATION NO.
16991.017	10/785,109
APPLICANTS	
Masaaki GOTO et al.	
FILING DATE	GROUP
February 25, 2004	1646

FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB- CLASS	TRANSLATION	1
	AAl	0 784 093 A1 /	07/1997	ЕРО				Yes No
	AB1	0 974 671 A1	01/2000	ЕРО				Yes No
	AC1	1 127 578 A1	08/2001	ЕРО				Yes No
	AD1	1 270 015 A2 /	01/2003	ЕРО				Yes No
	AE1	1 270 015 A3	02/2004	ЕРО				Yes No
	AF1	62-201825 /	09/1987	Japan			X (abstract only)	Yes No
	AG1	98/46211 A1 /	10/1998	PCT				Yes No
	AH1	98/46644 A1	10/1998	PCT			X (abstract only)	Yes No
	All	99/15691 A1 /	04/1999	PCT			X (abstract only)	Yes No
	AJI	01/44472 A1 ~	06/2001	PCT				Yes No
	AK1	03/002713 A2 ノ	01/2003	PCT				Yes No
	AL1	03/074084 A1 ~	09/2003	PCT				Yes No

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

	AM1	Jean-Jacques Body, "Current and Future Directions in Medical Therapy: Hypercalcemia," CANCER Supplement, 88(12):3054-3058 (2000)
	ANI /	Chemical Abstracts, Vol. 123, No. 18, Abstract No. 237583p (1995)
	AO1	Chowdhury et al., "Effects of Heparin on Osteoclast Activity," Journal of Bone and Mineral Research, 7(7):771-777 (1992)
EXAMINER		DATE CONSIDERED

			ATTY. DOCKET NO.	APPLICATION NO.						
			16991.017	10/785,109						
		FORM PTO-1449	APPLICANTS							
<u>INF</u>		N DISCLOSURE STATEMENT	Masaaki GOTO et al.							
			FILING DATE	GROUP						
			February 25, 2004	1646						
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	AA2 /	Cochran and Abernathy, "Modulatio Hormone and Interleukin-1," <i>Bone</i> , 9		noglycans: Effects of Parathyroid						
	AB2/	Fautrel and Guillemin, "Cost of illne 126 (2002)	Fautrel and Guillemin, "Cost of illness studies in rheumatic diseases," Current Opinion in Rheumatology, 14:121-26 (2002)							
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	AE2	Porcel et al., "Anaphylaxis to calcito	onin," Allergologia et immunopathol	ogia, 28(4):243-245 (2000)						
	AF2	Romas et al., "Involvement of Recep Destruction in Rheumatoid Arthritis,		Tumor Necrosis Factor-α in Bone						
	AG2 /	Tomoyasu et al., "Characterization of Factor," Biochemical and Biophysical								
	AH2/	White and Schilling, "Postmenopaus Clinical Excellence for Nurse Practi		l Perspectives and Current Concerns,"						
	AI2	Yamamoto et al., "Hypocalcemic Ef Thyroparathyroidectomized Rat," En								
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				ine through citation if not in conformance and not						
considered. In	crude copy	of this form with next communication to Ap	pricant.							

					ATTY. DOCKET NO.	APPLIC	ATION NO.		
					16991.017 10/785,109				
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INF	ORMAT	FORM PTO-144 ION DISCLOSURI		<u>T</u>	Masaaki GOTO et al.				
					FILING DATE	GROUP			
					February 25, 2004	1646			
		*			F-1				
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME		CLASS	SUB- CLASS	FILING DATE	
	AA3			Davis et	al.				
	AB3	4,710,473	12/1987	Morris					
	AC3	4,959,314	09/1990	Mark et	al.				
	AD3	5,118,667	06/1992	Adams e	et al.				
	AE3	5,366,859	11/1994	Miyoshi	et al.				
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	АН3	5,427,954	06/1995	Sandy et	Sandy et al.				
	A13	5,447,851	09/1995	Beutler 6	et al.			1	
	AJ3	5,457,035	10/1995	Baum et	al.			***	
	AK3	5,545,722	08/1996	Naka					
	AL3	5,578,569	11/1996	Tam					
	АМ3	5,585,479	12/1996	Hoke et	al.				
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	AP3	5,736,506	04/1998	Naka					
	AQ3	5,830,850	11/1998	Gelb et a	al.				
	AR3	5,843,678	12/1998	Boyle					
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	AU3	6,015,938	01/2000	Boyle et	al.				
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					ATTY. DOCKET NO. APPLICATION NO.			
					16991.017	10/785,	109	
		FORM PTO-1449			APPLICANTS			
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	AA4 6,046,033 04/2000 AB4 6,087,555 07/2000		G	oto et al.				
			D	unstan <i>et al</i> .				
	AC4	6,242,213 B1	06/2001	A	nderson			
	AD4	6,242,586 B1	06/2001	G	orman <i>et al</i> .			
	AE4	6,271,349 B1	07/2001	D	ougall <i>et al</i> .			
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	AJ4	6,297,022 B1	10/2001	М	cDonnell et al.			
	AK4	6,316,408 B1	11/2001	В	oyle			
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	AN4	6,479,635 B1	11/2002	A	nderson et al.			
	A04	6,525,180 B1	02/2003	G	orman <i>et al</i> .			
	AP4	6,528,482 B1	03/2003	A	nderson et al.			
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	AR4	6,562,948 B2	05/2003	A	nderson			
	AS4 6,613,544 B1 09/2003 AT4 6,649,164 B2 11/2003 AU4 6,693,175 B2 02/2004		В	oyle <i>et al</i> .				
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			Y	ano <i>et al</i> .				
	AV4	6,740,522 B2	05/2004	A	nderson			
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	AA5	2002/0081720 A1	06/2002	Dougall et al.			
	AB5	2002/0086826 A1	07/2002	Anderson et al.			
	AC5	2002/0086827 A1	07/2002	Anderson et al.			
	AD5	2002/0127637 A1	09/2002	Jian et al.			
	AE5	2002/0150989 A1	10/2002	Greene et al.			
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	AJ5	2003/0103978 A1	78 A1 06/2003	Deshpande et al.			
	AK5	2003/0104485 A1	06/2004	Boyle			
	AL5	2003/0139325 A1	07/2003	Yamamoto et al.			
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	AO5	2003/0175840 A1	09/2003	Anderson et al.			
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	АТ5	2003/0216297 A1	11/2003	Kumakura et al.		<u> </u>	
	AU5	2004/0033535 A1	02/2004	Boyle et al.			
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FORM PTO-1449 INFORMATION DISCLOSURE STATEMENT

ATTY. DOCKET NO.	APPLICATION NO.						
16991.017	10/785,109						
APPLICANTS							
Masaaki GOTO et al.							
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February 25, 2004	1646						

FOREIGN PATENT DOCUMENTS

EXAMINER		DOCUMENT	DATE	COLDIZAN	01.10	SUB-	TD AND ASS	
INITIAL		NUMBER	DATE	COUNTRY	CLASS	CLASS	TRANSLATI	
	AA6	0514130 A2	11/1992	EPO				Yes No
	AB6	0514130 A3	11/1992	ЕРО				Yes No
	AC6	0526905 A2	02/1993	ЕРО				Yes No
	AD6	0526905 A3	02/1993	EPO				Yes No
	AE6	0727211 A1	08/1996	EPO				Yes No
	AF6	0874045 A1	10/1998	ЕРО				Yes No
	AG6	0911342 A1	04/1999	ЕРО				Yes No
	АН6	330400	05/1999	New Zealand				Yes No
	AI6	86/00922 A1	02/1986	PCT				Yes No
	AJ6	90/14363 A1	11/1990	PCT				Yes No
	AK6	93/12227 A1	06/1993	PCT				Yes No
	AL6	93/21946 A1	11/1993	PCT \				Yes No
	АМ6	95/11308 A1	04/1995	PCT				Yes No
	AN6	96/28546 A1	09/1996	PCT				Yes No
	A06	97/00317 A1	01/1997	PCT				Yes No
	AP6	97/00318 A1	01/1997	PCT				Yes No
	AQ6	97/23614 A1	07/1997	PCT				Yes No
	AR6	98/07840 A1	02/1998	PCT			Abstract X only	Yes No
	AS6	98/25958 A2	06/1998	PCT				Yes No
	АТ6	98/28424 A2	07/1998	PCT				Yes No
	AU6	98/28426 A2	07/1998	PCT				Yes No
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						ATTY. DOCKET NO.	APPLIC	ATION NO.		
						16991.017 10/785,109				
		FORM	PTO-1449	•		APPLICANTS				
INF	ORMAT	ION DIS	CLOSURE	STATEMEN'	<u>T</u>	Masaaki GOTO et al.		-		
						FILING DATE	GROUP			
						February 25, 2004	1646			
					FOREI	GN PATENT DOCUMENTS				
EXAMINER INITIAL				COUNTR	Υ	CLASS	SUB- CLASS	TRANSLATION		
	AA7	98/46	751 A1	10/1998	PCT				Yes No	
	AB7	98/49	305 A1	11/1998	PCT				Yes No	
	AC7	99/19	468 A1	04/1999	PCT				Yes No	
<u> x</u>	AD7	99/53	942 A1 10/1999 PC		PCT				Yes No	
	AE7	99/58	99/58674 A2 11/1999 PC						Yes No	
	AF7	7 99/58674 A3 11/1999 PC			PCT				Yes No	
	AG7	01/03	719 A2	01/2001	PCT				Yes No	
	AH7	01/03	719 A3	01/2001	PCT			,	Yes	
	AI7	01/17	543 A2						No Yes	
	AJ7		543 A3	03/2001	PCT				No Yes	
	AK7		203 A1	03/2001	PCT				No Yes	
	AK	01/10			<u> </u>	Author, Title, Date, Pertinent Pages, et	2)		No	
	1	1	1				-			
	AL	7		<i>et al.</i> , "Com 2, 252:1651-		y DNA Sequencing: Expressed Se	equence Tags an	d Human (Genome Project",	
	AM	7		on et al., "A n", Nature, .		e of the TNF receptor and its liga (9 (1997)	nd enhance T-ce	ell growth a	and dendritic-cell	
	AN	7	menopa	ausal womer	ı: links bet	of degenerative spinal and aortic calcification on bone density measurements in post- links between osteoporosis and cardiovascular disease?", European Journal of Clinical 813-817 (1994)				
	АО	7				al Structure of the Soluble Human 55 kd TNF Receptor-Human TNFβ Complex: Receptor Activation", Cell, 73(3):431-445 (1993)				
	AP	7	Bennett, C. F., "Antisense Research", Science, 271:434 (1996)							
	AQ	7				Necrosis, Cachexia, Shock, and In 05-518 (1988)	flammation: a C	Common M	ediator", Annual	
EXAMINER	<u>L</u>		<u> </u>				DATE CO	NSIDERED		
EVAMINED.	Initial if	reference	considere	d whether or	not citation i	s in conformance with MPEP 609. Dra	w line through cites	tion if not in	conformance and not	

				ATTY. DOCKET NO.	APPLICATION NO.					
				16991.017	10/785,109					
		FORM	DTO 1440	APPLICANTS						
<u>INF</u>	ORMATIC		PTO-1449 CLOSURE STATEMENT	Masaaki GOTO et al.						
				FILING DATE	GROUP					
				February 25, 2004	1646					
			OTHER (Including	Author, Title, Date, Pertinent Pages	, etc.)					
	AA	8	Beutler and van Huffel, "Unra 668 (1994)	veling Function in the TNF Li	gand and Receptor Families", Science, 2	64:667-				
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	AD	8	Brinster et al., "Factors affect eggs", Proceedings of the Nat		ng foreign DNA into mice by microinject USA, 82:4438-4442 (1985)	ing				
	AE	Bucay et al., "osteoprotegerin-deficient mice develop early onset osteoporosis and arterial calcification", Genes and Development, 12(9):1260-1268 (1998)								
	AF	8	Capon et al., "Designing CD4 immunoadhesins for AIDS therapy", Nature, 337(6207):525-531 (1989)							
	AG	8	Cappecchi, M. R., "Altering the	ne Genome by Homologous R	ecombination", <i>Science</i> , <i>244</i> :1288-1292 ((1989)				
	АН	8			eoclastogenic cell lines from the H-2K ^b ts Sciences of USA, 90:5578-5582 (1993)	sA58				
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	AM	8	Culver and Blaese, "Gene the	rapy for cancer", Trends in Ge	netics, 10(5):174-178 (1994)					
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EXAMINED:	Initial if	reference	considered, whether or not citation i	s in conformance with MPFP 609	Draw line through citation if not in conformance	e and not				
considered. In	clude copy	of this	form with next communication to Ap	plicant.		<u>.</u> 				

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

				ATTY. DOCKET NO.		APPLICATION NO.					
				16991.017		10/785,109					
		FORM	PTO-1449	APPLICANTS							
INF	ORMATIC		CLOSURE STATEMENT	Masaaki GOTO et al.							
				FILING DATE		GROUP					
				February 25, 2004		1646					
	AA	9	Database EMEST16, EMBL	IBL Database Accession No. AA170348							
	AB	9	Database GenEMBL, EMBL	Database GenEMBL, EMBL Accession No. AF019048							
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	AD	9		DeClerck et al., "Inhibition of Autoproteolytic Activation of Interstitial Procollagenase by Recombinant Metalloproteinase Inhibitor MI/TIMP-2", Journal of Biological Chemistry, 266(6):3893-3899 (1991)							
	AE	9	Demer, L. L., "A Skeleton in	Demer, L. L., "A Skeleton in the Atherosclerosis Closet", Circulation, 92(8):2029-2032 (1995)							
	AF	9	Ebi et al., "Mechanism of Mast Cell Deficiency in Mutant Mice of mi/mi Genotype: An Analysis by Co-Culture of Mast Cells and Fibroblasts", Blood, 75(6):1247-1251 (1990)								
	AG	9	Efrat, S., "Prospects for gene therapy of insulin-dependent diabetes mellitus", <i>Diabetologia</i> , 41(12):1401-1409 (1998)								
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	Al	9	Engels and Uhlmann, "Gene	Synthesis", Angew. Chem. Int.	Ed. Engl.,	28:716-734 (1989)					
	AJ	9		ke Cells and a Human Osteosare		lasminogen Activator Activity of Line MG-63", Journal of Bone and					
	AK	9		ulture of Disaggregated Rat Ost Cell Number by Calcitonin and		nhibition of Bone Resorption and 07-139]", Journal of Cellular					
	AL	9		fering Fas Gene Mutations Imp ne", <i>Cell</i> , 81(6):935-946 (1995)		osis in a Human Autoimmune					
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	AN	9		ods in Sequence Comparison an and Applications, pp. 127-149 (1		", Macromolecular Sequencing and					
EXAMINER						DATE CONSIDERED					
EXAMINER:	Initial if r	eference	considered, whether or not citation	is in conformance with MPEP 609. I	Draw line thr	ough citation if not in conformance and not					
considered. In	clude copy	of this f	form with next communication to Ap	pplicant.		-					

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<u>INFORM.</u>		CLOSURE STATEMENT	Masaaki GOTO et al.			
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